

✓
Page 9, line 24, delete "a "do nothing" function".

✓
Page 10, line 14, change "used" to --uses--.

P2
✓
Page 18, line 4, change "any" to -any device receiving the same clock signal and which device is coupled to af-

✓
Page 18, line 20, delete "do".

✓
Page 20, line 8, change "based on" to --depending upon--.

IN THE CLAIMS:

R3
1. (amended) An apparatus, comprising:
a provision for user input;
a provision for output;
a central processing unit (CPU) coupled to said user input and output;
a monitor [temperature level detector] for monitoring [detecting] temperature[s] within said apparatus; and
a clock [CPU sleep] manager adapted to receive a control signal [detected temperature levels] from said monitor, [temperature level detector,] said monitor [CPU sleep manager] selectively stopping clock signals from being sent to said central processing unit (CPU) when said detected temperature rises to a level at and above a selected reference temperature level.

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Cancel Claim 4.

Inb C27
A4
5. (amended) An apparatus, comprising:
a provision for user input;
a provision for output;
a central processing unit (CPU) coupled to said user input and output;

A4
end

a monitor for monitoring [CPU activity and temperature level detector, said temperature level detector detecting] temperature[s] within said apparatus; and

a clock [CPU sleep] manager adapted to receive a control signal [detected CPU activity and temperature levels from said CPU activity and temperature level detector] said monitor, said clock [CPU sleep] manager selectively stopping clock signals from being sent to said central processing unit (CPU) when monitored [detected] temperature rises to a level at and above a selected reference temperature level and said CPU is processing non-critical I/O.

6. (amended) An apparatus, comprising:

a provision for user input;

a provision for output;

a central processing unit (CPU) coupled to said user input and output, said central processing unit (CPU) receiving one of a first clock signal at a first speed or a second clock signal at a second speed; and

a clock manager coupled to a monitor that monitors temperature with said apparatus, said clock manager designating [CPU sleep manager adapted to receive temperature levels detected within said apparatus and further adapted to designate] that said central processing unit (CPU) receives said first clock signal when monitored [detected] temperature is at a level below a selected reference temperature level and receives said second clock signal when said detected temperature is at a level at and above said selected reference temperature level.

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Cancel Claims 7 and 8.

Inb C3 D1
AS

9. (amended) An apparatus, comprising:

a provision for user input;

a provision for output;

a central processing unit (CPU) coupled to said user input and output;

a monitor [temperature level detector] for monitoring [detecting] temperature[s] within said apparatus; and

a clock [CPU sleep] manager adapted to receive a control signal [detected temperature levels] from said monitor, [temperature level detector,] said clock manager [CPU sleep manager]

A5 end

reducing central processing unit (CPU) clock speed when said detected temperature level is at and above a selected reference temperature level.

✓
Cancel Claim 10.

11. (amended) An apparatus, comprising:
a provision for user input;
a provision for output;
a central processing unit (CPU) coupled to said user input and output;
a monitor for monitoring [CPU activity and temperature detector, said temperature level detector detecting] temperature[s] within said apparatus; and
a clock [CPU sleep] manager adapted to receive a control signal from said monitor, [detected CPU activity and temperature levels from said CPU activity and temperature detector,] said clock [CPU sleep] manager reducing central processing unit (CPU) clock speed when said monitored [detected] temperature level is at and above said selected reference temperature level and said CPU is processing non-critical I/O.

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Cancel Claim 12.

13. (amended) A device, comprising:
a central processing unit (CPU); and
means for modifying a clock signal supplied to said central processing unit (CPU) [determining whether said central processing unit (CPU) may rest] based upon a temperature level within said device and activating a hardware selector in response to a control signal from said means. [based upon said determination.]

Sub C4 Dv
RS

17. (amended) A computer, comprising:
means for predicting temperature levels relevant to the operation of a central processing unit within said computer; and
means for using said prediction for automatic [temperature] control of temperature within said computer, said temperature control remaining transparent to a user of said computer.

P2

18. (amended) A computer, comprising:
means for predicting [activity and] temperature levels within said computer; and
means for using said prediction for automatic temperature control within said computer,
said temperature control remaining transparent to a user of said computer.

19. (amended) The computer of Claim 17, including means for user modification of said [automatic] temperature level predictions, [and using said modified predictions for automatic temperature control.]

P8 end

20. (amended) The computer of Claim 18, including means for user modification of said [automatic activity and] temperature level predictions, [and using said modified predictions for automatic temperature control.]

Sub C5

21. (amended) An apparatus, comprising:
a central processing unit (CPU);
means for sampling a temperature level within said apparatus; and
means for automatically adjusting the processing speed of said central processing unit (CPU) by modifying the clock signal utilized by the central processing unit (CPU) to maintain said temperature level within said apparatus below a selected reference temperature level.

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Cancel Claim 22.

Sub C6

30. (amended) The apparatus of Claim 1 wherein said clock [CPU sleep] manager further stops clock signals from being sent to [sleeps] a PCI bus coupled to the central processing unit (CPU).

R9

31. (amended) The apparatus of Claim 30 wherein said clock [CPU sleep] manager further stops clock signals from being sent to [sleeps] any other CPUs connected to the PCI bus.

Please add the following claims:

32. An apparatus, comprising:
a central processing unit (CPU);
a monitor for monitoring temperature associated with said CPU; and
a clock manager coupled to said monitor, said clock manager selectively modifying a clock signal being sent to said CPU when said temperature rises to a level at and above a selected reference temperature.
33. The apparatus of Claim 1, wherein said monitor is on board said central processing unit (CPU).
34. The apparatus of Claim 5, wherein said monitor is on board said central processing unit (CPU). *A10*
35. The apparatus of Claim 9, wherein said monitor is on board said central processing unit (CPU).
36. The apparatus of Claim 10, wherein said monitor is on board said central processing unit (CPU). *SAC 7*
37. The apparatus of Claims 1, wherein said monitored temperature is detected via a temperature sensor coupled to said central processing unit (CPU).
38. The apparatus of Claim 5, wherein said monitored temperature is detected via a temperature sensor coupled to said central processing unit (CPU).
39. The apparatus of Claims 9, wherein said monitored temperature is detected via a temperature sensor coupled to said central processing unit (CPU).

A10

40. The apparatus of Claim 10, wherein said monitored temperature is detected via a temperature sensor coupled to said central processing unit (CPU).

41. The apparatus of Claim 37, wherein said temperature sensor is mounted directly on said central processing unit (CPU).

42. The apparatus of Claim 38, wherein said temperature sensor is mounted directly on said central processing unit (CPU).

43. The apparatus of Claim 39, wherein said temperature sensor is mounted directly on said central processing unit (CPU).

44. The apparatus of ~~Claim 40~~, wherein said temperature sensor is mounted directly on said central processing unit (CPU).

45. The apparatus of Claim 37, wherein said temperature sensor is mounted within said central processing unit (CPU).

46. The apparatus of Claim 38, wherein said temperature sensor is mounted within said central processing unit (CPU).

47. The apparatus of Claim 39, wherein said temperature sensor is mounted within said central processing unit (CPU).

48. The apparatus of ~~Claim 40~~, wherein said temperature sensor is mounted within said central processing unit (CPU).

49. The apparatus of Claim 37, wherein said temperature sensor is mounted on a printed wiring board (PWB) adjacent said central processing unit (CPU).

50. The apparatus of Claim 38, wherein said temperature sensor is mounted on a printed wiring board (PWB) adjacent said central processing unit (CPU).

51. The apparatus of Claim 39, wherein said temperature sensor is mounted on a printed wiring board (PWB) adjacent said central processing unit (CPU).

52. The apparatus of Claim 40, wherein said temperature sensor is mounted on a printed wiring board (PWB) adjacent said central processing unit (CPU).

53. The apparatus of Claim 37, wherein said temperature sensor is a thermistor.

54. The apparatus of Claim 38, wherein said temperature sensor is a thermistor.

55. The apparatus of Claim 39, wherein said temperature sensor is a thermistor.

56. The apparatus of Claim 40, wherein said temperature sensor is a thermistor.

57. The apparatus of Claim 1, wherein said temperature is sensed on a periodic basis.

58. The apparatus of Claim 5, wherein said temperature is sensed on a periodic basis.

59. The apparatus of Claim 9, wherein said temperature is sensed on a periodic basis.

60. The apparatus of Claim 10, wherein said temperature is sensed on a periodic basis.

61. The apparatus of Claim 57, wherein the frequency of said temperature sensing changes as said temperature reaches preselected threshold values.

62. The apparatus of Claim 58, wherein the frequency of said temperature sensing changes as said temperature reaches preselected threshold values.

63. The apparatus of Claim 59, wherein the frequency of said temperature sensing changes as said temperature reaches preselected threshold values.

64. The apparatus of Claim 60, wherein the frequency of said temperature sensing changes as said temperature reaches preselected threshold values.

65. The apparatus of Claim 57, wherein the frequency of said temperature sensing is user modifiable.

66. The apparatus of Claim 58, wherein the frequency of said temperature sensing is user modifiable.

67. The apparatus of Claim 59, wherein the frequency of said temperature sensing is user modifiable.

68. The apparatus of Claim 60, wherein the frequency of said temperature sensing is user modifiable.

69. The computer of Claim 18, wherein said temperature levels are predicted using a temperature prediction mode.

~~69. The computer of Claim 18, wherein said temperature levels are predicted using a temperature prediction mode.~~

70. The computer of Claim 18, wherein said temperature levels are predicted using a temperature prediction mode without using temperature sensors.

lnb (10) 71. The apparatus of Claim 1, wherein said monitor uses a control system of continuous feedback loops.